5

## APPARATUS AND METHOD FOR PARALLEL MULTIMEDIA PROCESSING

## ABSTRACT OF THE DISCLOSURE

An apparatus and method for processing a multimedia digital bitstream is disclosed. The apparatus comprises a processing chain made up of a plurality of media processors. Each media processor processes a portion of the multimedia digital bitstream in real time. Each portion of the multimedia digital bitstream is split into a primary bitstream and a secondary bitstream. The primary bitstream is processed and merged with the unprocessed secondary bitstream. The parallel processing method of the present invention enables the processing chain to output a fully processed bitstream in real time. The processing chain may be used to transcode a high definition (HD) video bitstream in real time using a plurality of bitrate transcoder units.